

Nebraska Ground Water Monitoring Advisory Committee (NGWMAC)
&
Nebraska Surface Water Monitoring Council (NSWMC)
Annual Joint Meeting

Thursday, October 27, 2016, 10:00 AM-1:00 PM
Lincoln Lancaster Health Department, 3140 N St, Lincoln, Nebraska
Basement Training Room

Minutes

1. Present: NDNR (Shuhai Zheng); LLCHD (John Chess); USACE (Brent Dinkel); UNL/CSD (Colleen Steele, Dana Divine, Troy Gilmore); NGPC (Frank Albrecht, Dave Tunink); NDEQ (Marty Link, Robert Parker, Tom Heatherly, Greg Michl, Dave Bubb, Mike Archer, John Bender, Carla McCullough, Laura Johnson, Sam Radford); USGS (Dave Rus, Amanda Flynn, Ginny McGuire, Brenda Densmore, Steve Peterson); LPSNRD (Dan Schulz, Dick Ehrman); NARD (Jennifer Swanson); NHHS (Elizabeth Esseks); ENWRA (Katie Cameron); JEO (Rick Wilson); Olsson's (Karen Griffin); LLNRD (Tylr Naprstek); LPNNRD (John Miyoshi)
2. Short Business Meetings
3. Agency updates
 - a. USGS
 - i. Some new continuous water quality data sites this year:
 1. [Nitrate data](#) have shown higher concentrations in the Elkhorn Basin relative to the Central Platte
 2. Some expansion of [continuous water temperature sites](#)
 3. Inquired about the interest in continuous PO4 data; Sense from the group that total P is probably more relevant
 - ii. List of pesticide analytes has grown over the last year
 - iii. IT infrastructure that serves all USGS data is slated to be overhauled in the spring 2017. This is supposed to be seamless to users.
 - iv. National brackish groundwater assessment soon available
 - v. Supporting City of Lincoln with characterizing Arsenic in GW in the Ashland wellfield
 - vi. WSF grant to convert AEM data into a 3D geologic model in Sarpy County related to the Mead site
 - vii. Nutrient-processing monitoring in the rec. reach of the Missouri River
 - viii. Steve Peterson is the new investigations chief for Nebraska; Continue with your primary USGS contacts, but he is another contact;
 - ix. Finishing up GW model of the High Plains – Tool to look at future conditions; Report and model available in a month; Might tie in with water quality
 - x. Stakeholder meetings planned for this spring (early April)

b. NDEQ

- i. WQ Standards – Rule change update; EPA is requiring the entire reg. list to be open to public comment; 2 hearings coming up (1 on December 13); Human health criteria are going to be changing (some stricter, some looser) as well as some housekeeping; Microcystin criteria coming that will probably be less than current 20 ppb (Winter 2017?), New MC number will get added to the existing narrative in the regs; Will add a number for cylindrospermospirin; Selenium fish tissue aquatic criterion level will be changing (Most Se impairments will prob. Go away)
- ii. Nutrient impacts on biota – Currently at the correlation phase
- iii. Fish tissue – 40 sites total, 3 for PCB
- iv. Lakes – 30 lakes, a few fish kills, but mostly blue-green algae alerts; New MC level might get people’s attention; Outreach will be an important thing to address (this winter); Management solutions will be a challenge; Interest in giving feedback on outreach or management solutions can contact Mike Archer
- v. SW monitoring – Basin rotation sampling (Elkhorn and Mo Tribs done in 2016; N and S Platte and White Hat in 2017); Wahoo Creek Special Basin study that had intensive chemistry sampling paired with algal and eco. Sampling (done by UNL); Ambient stream monitoring – Hope to have 101 fixed sites in 2017
- vi. 2016 Integrated report is now released
- vii. Source Water Program – 3 grants coming up (Small scale ‘watershed management plans’ related to GW management);
 1. Stakeholder group has been set up to develop a state campaign for dealing with Nitrates at the Non-point level – Trying to come up with a consistent voice/message
- viii. Robert Parker is the new Clean Water Act coordinator at NDEQ
- ix. Taking informal comments on Title 122 (Subsurface injection) regs, plus housekeeping on some others
- x. Working w/ NARD to try to come up with common nomenclature on BMPs/management practices/management restrictions among the various NRDs and other agencies. This will help to tell the story of managing GW to non-Nebraska audiences (such as to produce a statewide map of areas where fertilizing is restricted)
- xi. 319 grants to be announced next month
 1. Getting EPA approval for the Bazile project has opened doors for other GW areas;
 2. Several watersheds across the state have applied for funds

c. JEO

- i. Impressive network of continuous quantity and quality data in Iowa between the University of Iowa and USGS (67 sites with continuous nitrate data, also exploring other nutrients)

d. NARD

- i. Recreation website being updated to link back to the NDEQ alert site
- e. ENWRA – Continued sampling at standard sites
 - i. Also MEAD sampling related to top of the Dakota
 - ii. WSF grant for age-dating sampling of secondary bedrock to help understand recharge rates; Will need to request well information from NRDs
- f. Ne Health Dept
 - i. Drug takeback program is expanding to statewide with funding from a few grants
 - ii. New Cr(VI) MCL has been released with little fireworks (perhaps due to Brangelina issues)
 - iii. More focus on application of regs following the Flint scenario
 - iv. Getting a new director next month
- g. LPSNRD
 - i. Airborne ElectroMagnetic surveying being done in several eastern NRD areas; Helping understand many GW issues, including in wellhead protection areas
 - ii. Regs are up for review this year; Seeing NO₃ declines in some places, and are exploring how the regs will cycle down and what are the ‘triggers’ to cycling down? A good problem to have
 - iii. Don’t see lots of tile drain installations in the district
 - iv. Working on a project (Marsh Rim) to restore a saline wetland using brackish groundwater;
- h. LLCHD
 - i. City wide well sampling wrapping up
 - ii. Jim Newman has moved on
- i. USACE
 - i. Sampling report coming out with most recent results from USACE sampling efforts
- j. Ag Chem Clearinghouse
 - i. Currently 480,000 analytical results from 27K wells; 120.4K of those are NO₃ results
 - ii. Data recently added and to be updated by December:
 - 1. 2015 data from 21 NRDs and LLCHD
 - 2. Some remaining 2008 ELISA pesticide data from NDA
 - 3. ENWRA ELISA data probably to be included as well
 - iii. 2016 data requests will be coming out soon plus addressing any issues with the 2015 data
 - iv. Website address will be changing. Current address will work until Jan 2017, but the new website is:

<http://nednr.nebraska.gov/Clearinghouse/Clearinghouse.aspx>
- k. CSD
 - i. Recent report available:

Aquifers of Nebraska I - The Codell Aquifer in Northeastern Nebraska, 2016, by Dana P. Divine, R.M. Joeckel, and Susan Olafsen Lackey: Bulletin 7 (New Series) Conservation and Survey Division School of Natural Resources

- I. NDNR
 - i. Annual fully appropriated report should be available by 1/1
 - ii. 22 of 23 NRDs developing/developed IMPs
 - iii. Director Fasset believes managing quantity and quality together is a smart strategy
 - iv. Have finished rating the current WSF proposals and turning over to Natural Resources Commission
 - v. Platte River Recovery Program entering the next 13-year phase
 - vi. Participation in Missouri River Recovery Program to develop a draft EIS and management plan by end of calendar year; Comments on the draft were solicited. Contact Shuhai for more information on the plan; Mentioned some of the management currently being considered
- m. NGPC
 - i. Aquatic Invasive Species – 2015 law enacted; Program coordinator coming, but is held up; Zebra Mussel infestation all along the Missouri, but especially in Lewis and Clark Lake; Mussel veligers in Zorinsky
 - ii. Cool water stream plan is now available online; Some NET money being used to support implementation of the plan
 - iii. Get yourselves out and your kids out for upcoming hunting season
- n. GW foundation
 - i. Annual conference is in 10/24-26/2017 in Boise
- o. Ollssons
 - i. Assisting with the wholesale revision of the Papio NRD GW management plan; Public meetings on 11/9 and 11/10; Helpful to find out how GW management plans in adjacent NRDs may differ
 - ii. Comment on the Tile Drains
- p. Lower Loup NRD
 - i. Installed flow meters in all wells on Area 28 – GW Management Area – Done for water quality; Data tracking challenges
 - ii. Pibel lake – Real-time continuous water quality measurements being collected for a year now; Looking to expand the CWQ sites
 - iii. S. Loup 319 grant in development (Quantity and quality)
- q. LPNNRD
 - i. At 150% of annual rainfall so far (most between 4/15 and 10/1), and irrigation is at 20% of normal
 - ii. AEM flights of GW quantity management area
 - iii. Basin Plan for the Lower Platte (several NRDs involved) in development addressing irrigation and municipal needs;
 - iv. Phase II and III GW mgmt. areas; Seem to be seeing improvement along the margins of the Bellwood area; Seem to be seeing elevated levels in

- the Schuyler area, but are starting to see implementation of new management practices there
- v. Heliborne phragmites spraying of 3,000 acres of the lower Platte (3 NRD area)
 - vi. Lower Platte Corridor Alliance – NRD is not paying dues this year, but there will be a discussion on November 15 at the Papio NRD to discuss the NRD's role in the Alliance;
4. NSWMC/NGWMAC items (Kept short for time's sake)
- a. Some discussion on tile drain impacts; Crop prices have probably slowed down the install of new tiles; General sense that it is an issue that will need to be addressed; Some are willing to get out ahead of it, but it sounds like lots of people are watching the outcome the Des Moines lawsuit before moving forward
 - b. Dave is interested in what folks think about the importance of water quality relative to water quantity in Nebraska and whether more outreach is needed. If interested, here is a short, completely non-scientific web-based survey to give feedback:
<https://www.surveymonkey.com/r/V6V2PXF>
5. Short presentations:
- a. Bazile Groundwater Management Area – Laura Johnson, NDEQ
 - b. Aquifer nitrate: perspectives from streambed sampling – Troy Gilmore, UNL
6. LUNCH

Some upcoming meetings of possible interest:

- November 2-3, 2016; Joint meeting of the NEWEA, APWA, and AWWA, Kearney, NE, <http://www.awwaneb.org/assets/2016/2016-09-fallconference-brochure.pdf>
- February 5-8, 2017; Midwest Fish & Wildlife Conference, Lincoln, NE, <http://www.midwestfw.org/index.html>
- April 10-12, 2017; Water for Food Global Conference, Lincoln, NE
- October 2017; Groundwater Foundation Annual Conference, Boise, ID, <http://www.groundwater.org/get-informed/opportunities/conference.html>

Some recent publications of possible interest:

- PROCEEDINGS of the [10th NATIONAL MONITORING CONFERENCE](#) (May 2016 in Tampa, Florida)
- Prediction of Pesticide Toxicity in Midwest Streams; Just released, Megan E. Shoda, Wesley W. Stone, and Lisa H. Nowell, doi:10.2134/jeq2015.12.0624
- Occurrence of current-use fungicides and bifenthrin in Rainwater Basin wetlands, 2016, William H. Mimbs IV, J. Patrick W., Cusaac, Loren M. Smith, Scott T. McMurry, and Jason B. Belden; Chemosphere 159, p. 275-81.
- Bouska, K. L., G. Lindner, C. P. Paukert, and R. B. Jacobson. 2016. Stakeholder-led science: engaging resource managers to identify science needs for long-term management of floodplain conservation lands. Ecology and Society 21(3):12. <http://dx.doi.org/10.5751/ES-08620-210312>
- An evaluation of methods for estimating decadal stream loads, 2016, Lee and others: Journal of Hydrology <http://dx.doi.org/10.1016/j.jhydrol.2016.08.059>